CLAIMS:

1. An induction motor which has a disk-shaped stator and rotor placed coaxially around a rotating shaft with their surfaces opposing each other across a predetermined gap and causes a rotating magnetic field generated from windings in the stator to induce current in windings of the rotor, turning the rotor, wherein:

the stator includes a stator yoke and stator teeth, the stator yoke consists of a laminate made by laminating a plurality of blanked ring-shaped magnetic steel plates in the axial direction, holes for a predetermined number of slots are formed in the stator yoke at equal intervals in the circumferential direction, the stator teeth have first tooth bodies around which stator windings are wound and first tooth tips formed on those ends of the first tooth bodies which oppose the rotor, and the other ends of the first tooth bodies fit in the holes in the stator yoke;

the rotor includes a rotor yoke and rotor teeth, the rotor yoke consists of a laminate made by laminating, in the axial direction, a plurality of blanked disk-shaped magnetic steel plates with a hole for insertion of a rotating shaft at the center, holes for a predetermined number of slots are formed in the rotor yoke at equal intervals in the circumferential direction, the rotor teeth have second tooth bodies which are inserted as rotor windings into a conductor plate and second tooth tips formed on that end of the second tooth bodies which oppose the stator, and the other end of the second tooth bodies fit in the holes in the rotor yoke; and

the stator windings are fitted around the first tooth bodies between the stator yoke and first tooth tips, the rotor winding conductor plate is fitted around the second tooth bodies and sandwiched between the rotor yoke and second tooth tips, the stator has the outer edge of the stator yoke secured in a motor bracket, and the rotor is fastened to a rotating shaft held by bearings of the motor bracket.

2. The induction motor according to claim 1, wherein the induction motor is a single-stator, double-rotor type, the induction motor comprising two each of the stator and rotor, the two stators being positioned back to back with each other in

the center of the motor bracket, the two rotors being placed in opposing relation to the respective stators, the stator teeth of the two back-to-back stators being aligned with each other, and the windings around the stator teeth differing in magnetic polarity from the respective rotors.

3. The induction motor according to claim 1, wherein the induction motor is a double-stator, single-rotor type, the induction motor comprising two each of the stator and rotor, the two rotors being positioned back to back with each other in the center of the motor bracket, the two stators being placed in opposing relation to the respective rotors, the stator teeth of the two stators being aligned with each other, and the windings around the stator teeth differing in magnetic polarity from the respective rotors.

4. The induction motor according to claim 2 or 3, wherein the backs of the stator teeth of the stators positioned back to back with each other or the backs of the rotor teeth of the rotors positioned back to back with each other are welded together by resistance welding.

5. The induction motor according to any one of claims 1 to 4, wherein the stator yoke is made of a non-magnetic, non-conductive material instead of the magnetic steel plates.

6. The induction motor according to any one of claims 1 to 5, wherein the rotor winding conductor plate is a metal plate or a laminate of metal plates with holes for accepting the second teeth bodies.

7. The induction motor according to any one of claims 1 to 6, wherein a conductive plate is used for the rotor yoke instead of the magnetic steel plates and combines the rotor winding conductor.

8. The induction motor according to any one of claims 1 to 7, wherein the stator teeth and the rotor teeth are laminates made by laminating a plurality of magnetic steel plates in the radial direction of the respective yokes and the widths of the magnetic steel plates in the laminates in the circumferential direction of the respective yokes are narrowed gradually from the outer to the inner edge of the respective yokes.

9. The induction motor according to any one of claims 1 to 8, wherein the ends of the stator teeth fitted in the stator yoke are welded to the stator yoke.

10. The induction motor according to any one of claims 1 to 9, wherein the ends of the rotor teeth fitted in the rotor yoke of the rotor are welded to the rotor yoke.

11. The induction motor according to any one of claims 1 to 10, wherein a reinforcement plate is attached to where the rotor is fastened to the rotating shaft.

12. The induction motor according to any one of claims 1 to 11, wherein the stator is fastened by press-fitting the stator yoke in the motor bracket and the rotor is fastened to the rotating shaft by shrinkage-fitting, press-fitting, or caulking.

13. The induction motor according to claim 7, wherein the conductive plate used instead of the magnetic steel plates is a copper plate or aluminum plate.